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ABSTRACT

This booklet outlines guidelines for choosing a teaching technique and describes a wide variety of techniques. It is intended as an aid to teachers of all subject matters. The first chapter develops a number of principles for choosing a teaching technique appropriate to a given situation, and divides techniques into three categories: 1) real-life, 2) simulations, and 3) abstractions from reality. The three subsequent chapters contain brief, concise descriptions of 10-12 techniques in each of these categories. Examples are 1) "real-life"--paid work experience, family membership, club activities, field trips; 2) "simulations"--role playing, games, inquiry training, laboratory experiments, in-basket, discussion; 3) "abstractions from reality"--lecture, recitation, programed instruction, computer assisted instruction, drill, examinations. (RT)

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CHOOSING TECHNIQUES FOR TEACHING AND LEARNING

by

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University of Illinois

Illustrated by Ann Forrestal Rund

ODE TO A TEACHER

There is a woman who
Tells the truth anyway,
Does what she thinks best,
Has a strong belif in people,
Sometimes SUFFERS while THEY DECIDE!
Helps others all she can in growth inducing ways;
Asks lots of questions,
Laughs a lot,
Loves,
Is loved,
Is a teacher, thank God!

--a student
Reba J. Davis

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FOREWORD

Are you an experienced teacher, an apprentice teacher, or a college student majoring in education? Are you a professional who prepares materials for teachers, a teacher educator, or an adult educator? If any of these titles apply to you, we hope this publication will have meaning for you.

Any teacher can become a *better* teacher. In "Choosing Techniques for Teaching and Learning," the author helps teachers to examine the teaching-learning process and to select appropriate techniques for aiding learning. The teachers of all subject matters can use the techniques described.

This is not a publication to sit down and read through. After reading Chapter I to increase understanding of the basic principles involved, one can skim through and familiarize himself with the techniques described in the other chapters for later reference. The "Happening" in Chapter V makes use of many of them and suggests a changing role for the teacher.

I plan to keep "Choosing Techniques for Teaching and Learning" on my bookshelf at the spot where I do my creative work in lesson planning. I consider it an idea book and expect to use it frequently.

The Home Economics Education Association is deeply indebted to Hazel Taylor Spitze for her contribution of time and talent in the preparation of this publication.

--Ruth Wheeler
President
HEEA-NEA

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--Hazel Taylor Spitze

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CHAPTER I

CHOOSING TECHNIQUES FOR TEACHING AND LEARNING

This volume is for the teacher who is tired of the telling-and-testing routine and who wishes to use techniques which make teaching and learning exciting and adventurous. It is not meant to be a recipe book. But it does contain descriptions of many techniques, just as a recipe book contains descriptions of dishes. If it were used in the same way, the teacher would have to be thought of as not only the cook but also the food *manager*. She would make or guide decisions about when to use each recipe, how to adapt it for those to be served, and which recipes combine to make satisfactory meals and an adequate diet. Just as a bride and a veteran cook use a recipe book differently, so a beginner and an experienced teacher will use this volume differently, the latter to remind himself of seldom used techniques and to learn about new ones.

The educative process has four aspects which answer the questions of *why*, *what*, *how*, and *whether*, in regard to teaching and learning. They are:

(1) objectives;
(2) content needed to meet the objectives;
(3) techniques for reaching the objectives;
(4) evaluation procedures.

This volume is devoted to the *third* aspect, the third step in the process. Usually, techniques are chosen for helping particular students learn particular content to meet particular objectives. In every case, teachers are trying to help students learn to think, or to solve their own problems, and the choice of technique is crucial to this objective. Some techniques may also be chosen especially to help students to clarify their values.

Clarification of Terms

Sometimes there is confusion in regard to the terms method and technique as applied to teaching, and both are often confused with teaching devices or media. In this volume we are using Verner's [1] definition of *technique* as "the relationship established by the . . . educator to facilitate learning among a particular and precisely defined body of participants in a specific situation." In simpler language, it is *what the teacher does to help students learn*.

Method, according to Verner, is *institutionally centered* and an administrative function. It refers to the arrangement which the

institution provides for learning, such as courses, correspondence study, internships, or conventions. *Technique*, on the other hand, is *learner centered* and a teaching function.

Devices include materials and media which may enhance the effectiveness of techniques. They include such things as tape recorders, films, exhibits, pictures, television, books, charts, chalkboards, overhead and opaque projections, and illustrative material in the form of realia, that is, real objects. Many of them enable a student to use two or more of his senses simultaneously to heighten learning. Some aid him in learning how to listen.

Techniques for identifying students' present and projected needs are not included here as teaching techniques though they are most important to the teacher and the students. Some of the more useful ones include questionnaires, anecdotal records, check lists, interest inventories, autobiographies, student and parent conferences, home visits, teacher observations, school records, and active listening. Techniques and sources which increase knowledge of the community in which they live are also helpful: local newspapers, radio, television, census records, conferences with local leaders, administrators, and the like. An advisory council can be of inestimable value.

Techniques or guidelines for working with teacher aides, consultants, and other members of the teaching team are not included either. This important subject should be considered at length in another volume.

Principles to Guide the Choice of Technique

Students enjoy and benefit from variety in teaching techniques. Each technique can meet several needs, and over time the variety chosen can meet all of the qualifications suggested by the following principles:

(1) If a student is involved in choosing the techniques, he will be more accepting of the resulting situation.

(2) If the learning situation is a part of real life or seems real to the student, he will perceive the relevance and be more eager to learn.

(3) If a student is participating, mentally as well as physically, his interest will be greater and achievement more rapid.

(4) If there is ego involvement or *psychological ownership* in the learning situation (that is, the student has a personal interest in the success of the technique), motivation and learning are increased.

(5) If the chosen techniques help a student to experience success, his self-esteem and motivation will be enhanced.

(6) If a student finds pleasure in the learning situation, he is more likely to continue learning.

(7) If a student develops skills for independent learning, he can continue to learn after his formal schooling is finished.

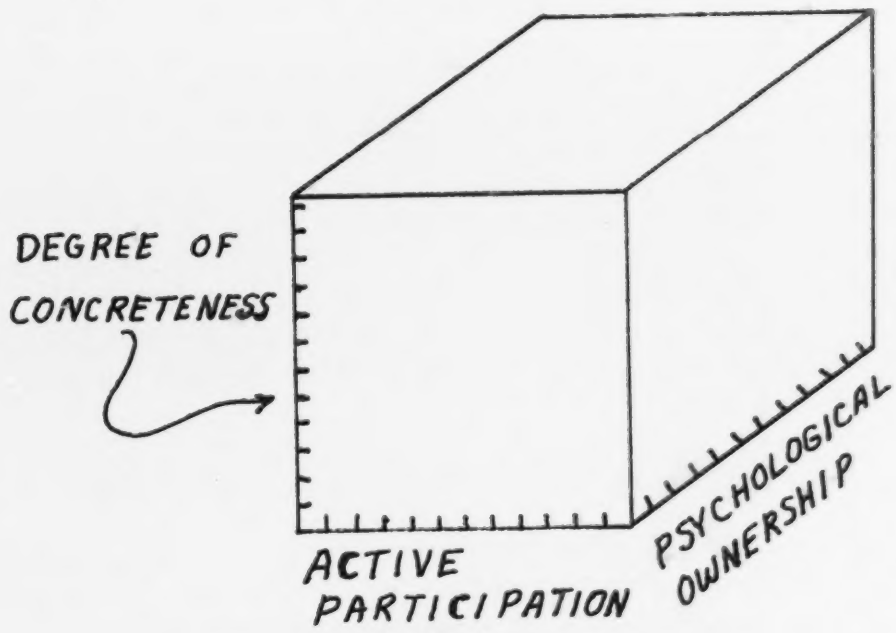
(8) If a student sees usefulness in his learning activities, motivation will be increased.

(9) If a student develops positive attitudes toward learning, he will be more likely to continue learning independently.

In brief, and in adaptation of Verner's scale, we might say that a teacher who wishes her teaching to be most effective will choose those techniques which provide:

(1) the most active participation of students,
(2) the greatest degree of reality or concreteness, and
(3) the most personal interest or ego involvement of students.

Which techniques rank high on all three dimensions?



Creating Teaching Techniques

The stress on the importance of choosing teaching techniques should not lead one to suppose that all effective techniques have already been "invented." Both teacher and students should be continually trying to find and to *create* new techniques. Students will frequently create new techniques or new adaptations of old ones when they, singly or in small groups, become responsible for learning a given content and teaching it to the rest of the class. The "expert" or panel of experts will have motivation to succeed in imparting their information, and many will show ingenuity in finding ways to share and to evaluate their efforts.

Teachers, too, create new techniques particularly suitable for their situation, and sometimes, of course, the "creations" are useful for other teachers as well. A teacher's hobby, e.g., photography or experimentation with a tape recorder, may suggest new ways to teach. Attendance at a convention may bring experiences which can be adapted for new techniques. (If coffee breaks seem an important part of the learning at conventions, for example, then breaks--milk, perhaps--may need to be provided for students!) Observing the assaults of salesmen

or advertisers may trigger new ideas, even though the reaction may be negative and require considerable adjustment. Adapting television shows or contests or industrial training programs may provide new teaching activities. Participation in clubs, political parties, informal adult education, church groups, or civic associations may offer experiences suitable for the classroom. The principal ingredients needed are a wish to experiment and an ability to see relationships.

Examples are legion. One ingenious committee of students informed themselves thoroughly on their chosen subject, posed as specified "experts" in the field, and held a "press conference" for the rest of the class to share their knowledge. One teacher appointed individual members of the class as "salesmen" when they were studying nutrition and each tried to sell a particular food as the "best buy in food value." (The one who had the soft drink had a hard time!) In another class, teacher and students decided to produce a "Handbook for Expectant Mothers" which they distributed to their pregnant friends.

Teaching in Groups

Since teachers usually do not tutor one student at a time as Rousseau did with Emile, they must find ways to work with groups. Nevertheless, groups do not learn; *only individuals can learn*, although what and how each individual learns is conditioned by his group membership.

What we really mean when we speak of teaching a group--if we actually teach--is that we teach *individuals* within a group. What can individuals do in a group that is larger than 15 or 20? They can

- watch or observe
- listen
- meditate
- play certain games
- read
- write
- vote
- imagine
- take turns participating in certain kinds of discussion

Large groups can also divide themselves into smaller groups or teams. What can individuals do within a small group, a committee of two to five or a class of fifteen or less? They can do all of the things they could do in a large group, plus at least these additional ones:

be more active participants in discussions of various kinds
lead discussion
plan
help create group designs
dramatize
practice in laboratory
experiment
demonstrate
carry out action projects
play additional types of games
serve as recorder, summarizer, evaluator

Individuals working apart from the rest of the class can do much of the aforementioned, plus at least the following:

secure paid employment

do home projects and other individual projects and laboratory work

keep a diary and do other creative writing

interview and be interviewed

pursue programed instruction

From the above, admittedly partial, list of what individuals can do to learn under varying conditions of group membership, can we conclude the following in regard to teaching techniques for classrooms?

- Fewer techniques are suitable for large groups than for small ones.
- Large group techniques do not usually permit active involvement of individual learners.
- If large group techniques are used, very large groups (50-100 or more) may be more economical than those of moderate size. Team teaching may increase flexibility in grouping.
- Large groups can be used as an audience to share the work of smaller groups and to increase feelings of unity.
- If we can accept that students do not all have to do the same thing at the same time in the same way in a large group (and the principle of individual differences surely dictates this as

reasonable), then large classes can use small group and individual techniques much of the time by dividing into frequently-changing committees, teams, or cells for various purposes.

Other Considerations

The effectiveness of any teaching technique is influenced by several factors besides the technique itself. One of these is the *climate of the classroom*, the atmosphere of freedom or authoritarianism, of flexibility or rigidity, of acceptance or rejection. This is partly a matter of the *student-teacher relationship*. If there is *mutual trust* and mutual respect, effective techniques will have a chance to operate. Teachers should earn respect, not demand it.

If teachers can have experience in *sensitivity training*, they are likely to be able to communicate with their students without the usual barriers of teacher status. Teacher and student can be more aware of each other's voice, gestures, actions and all of the other things that human beings use to communicate, and they may think of each other as two human beings instead of teacher and student in different status positions. Opportunities for sensitivity training are becoming more widespread, especially at universities.

Another important factor is the teacher's expectations for each student and the student's perception of this expectation. Recent experience and research have offered considerable evidence that student achievement, attitude toward learning, and self-esteem are affected by these expectations. Indeed, the teacher's expectations even affect his own behavior toward individual students. Unrealistically high expectations can lead to student frustration, but *low expectations can reduce motivation* and self-confidence.

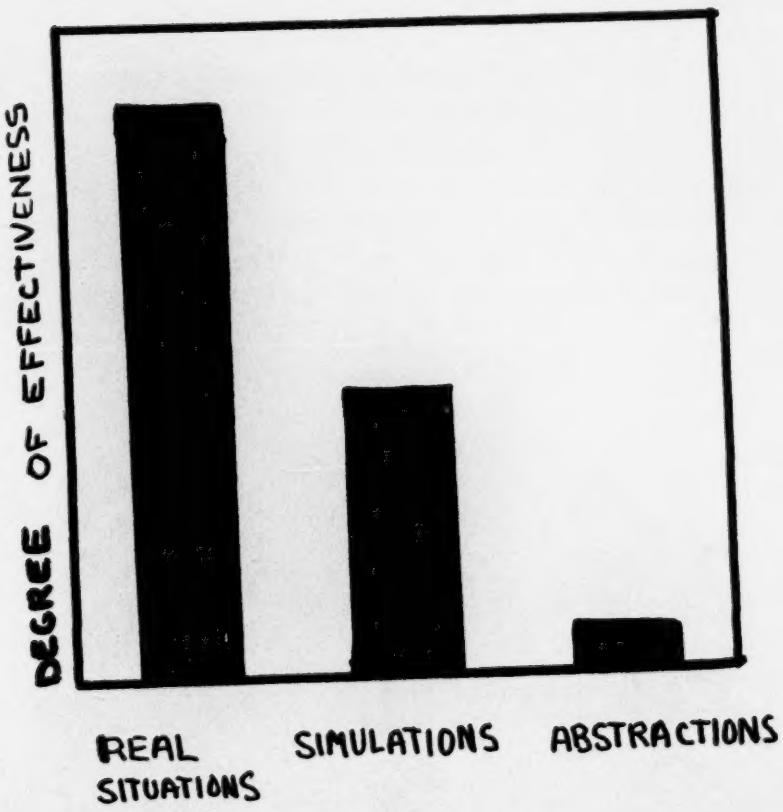
The *physical arrangements* also influence the effectiveness of most techniques. The kind of furniture and its flexibility, the amount of space in relation to the number of persons, the temperature, ventilation, humidity, lighting--all of these elements play a part. Of most importance here, perhaps, is the arrangement of the teacher and students in relation to each other. Are they separated into little scattered groups when they are supposed to be carrying a class discussion? Can they see each other's faces as they talk, or only the

backs of their heads? Is the teacher a part of the group or set apart in an authoritative position? Are all close enough together to feel themselves a part of one group? Can every student see the illustrations or demonstration being shown? Are they comfortable?

The physical environment might also be thought to include *devices for teaching*. Is the library convenient? Is it stocked with books and pamphlets on *all* reading levels represented in the class? Are projectors easily available, adequate illustrative materials stored for easy access, tools handy to meet every need?

The way in which the teaching technique is used and the teacher's skill in utilizing it also influence its effectiveness. How frequently it is used, how groups are formed for its use, and the size of the groups, how long the groups continue, and how individuals and small groups share their learnings--all have their effect. The way in which the teacher participates, the encouragement he gives, and the resources he makes available are likewise important. Student preparation for the use of the technique can be crucial.

The Classification Scheme



The scheme for classifying teaching techniques used here is based on the principle of reality. The categories are:

(1) real life situations,
(2) simulations of reality,
(3) abstractions from reality.

See Table of Contents for examples included.

Placing each technique in one of these three categories cannot be done with finality because the way in which it is used can affect its degree of reality. Skits or demonstrations, which we have classified as simulations could become abstractions for certain students if what was being demonstrated or dramatized was so far from their experience that they could see no relation to reality. A lecture might become a simulation if the lecturer gave a vivid description of a personal experience, for example, in a job, in travel, or in mental anguish. Home projects, usually considered real life situations, could be only simulations if carried out in a perfunctory manner to meet a course requirement. Field trips, too, might be less than real if the students could see no relation between what they were observing and their own life.

Experimentation in a laboratory, placed here in the simulation category, could be a real life situation if the student were trying to find a solution to a problem that had actually occurred in his everyday life, such as repairing his bicycle in the metal shop when some experimentation was needed to find the best way, or removing a stain on an actual garment, or finding out why the water in the laundry tub turned pink when both detergent and bleach were added.

Reading, writing, and speaking have been placed in all three categories because these activities must be classified according to what the students are reading, writing or speaking about, and why they are doing it.

Nevertheless, the classification scheme should have some usefulness if only to alert teachers to the fact that some techniques are more concrete than others, and to cause them to ask themselves whether abstract concepts can be better learned in concrete situations than in those more removed from real life.

CHAPTER II

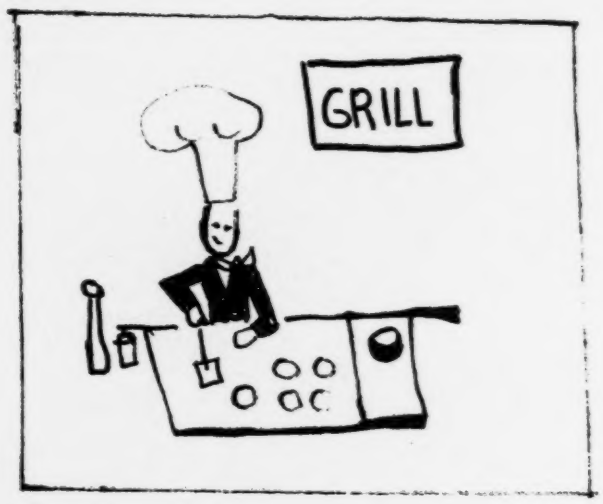
TEACHING AND LEARNING IN REAL LIFE SITUATIONS

If a teacher can be involved in the everyday life of the student to an extent that permits teaching in relation to real events, the optimum teaching-learning situation is present. This does not mean, of course, that the teacher will pry into the student's personal affairs, but only that some parts of the latter's life situation will overlap with that of the teacher. The most obvious example is a cooperative earn-and-learn program in which the teacher supervises on-the-job experience and conducts classes based on work-related needs. The content taught becomes a part of life instead of separated from life, and education is at once more acceptable and more useful.

Paid Work Experience

This may be a part of a vocational education program in which employers and teachers cooperate to provide learning and earning opportunities for the student. Even if it is not, however, the job a student holds may be a teaching-learning possibility if the teacher understands the work situation and gears classroom activities to meet the student's needs for knowledge, skills, and attitudes related to the world of work.

All students can benefit from work experience, and "academic" subjects may take on more meaning as a result, even for the gifted. Potential dropouts may be deterred. College-bound students need the experience in order to understand the jobs held by those who do not go to college, and they may gain self-sufficiency and salable skills which help them earn toward college expenses. Summer school might incorporate independent study courses for those with full-time jobs or provide opportunities for college-bound students to participate in earn-and-learn programs.



The choice of work stations and work supervisors is crucial to assure learning and avoid exploitation. Interviews with students, and usually parents, before placement are essential. School coordinators should also be chosen carefully and prepared well for their roles in relation to employers and students.

Teachers and administrators should plan together for adequate time for coordination and for regular visits to the work station. All

teachers and counselors should be concerned that meaningful courses accompany the work experience.

Family Membership

Students need opportunities to intellectualize the experiences they are having as members of families. They need to be able to look at their own family members objectively and to learn to adjust to situations which they cannot change. *Home* projects may be as valuable as any other action projects for purposes of practicing skills, using knowledge, and developing attitudes favorable to future spouse and parent roles. Supervision in planning and evaluating projects will be needed.

Creative writing (including journals and diaries), discussion, reading, personal conferences and other activities may be useful in understanding experiences gained through family membership. Opportunities to relate subject matter content to family life and the solution of family problems may arise in any course.

Home visits and other means of getting acquainted with families will be of great value to teachers attempting to help students learn through family membership. Involvement of other family members in projects may be desirable.

Sharing results of home projects and other individual activities in class may add to the value for all concerned.

Volunteer Work and Action Projects

This may have many of the same characteristics and the same learning opportunities as paid work. The work may take place in hospitals, nursing homes, day care centers, churches, health or welfare departments, schools, settlement houses, civic centers, or a variety of other agencies and institutions. It may or may not involve a formal cooperative arrangement between the student's teachers and the agency personnel. It enables students to put learned skills to use or to develop skills, to apply knowledge or to acquire knowledge, and to develop attitudes of community participation and cooperation.

Volunteer work may be done by individuals, small groups or whole classes or clubs. All students can profit from such experience. For

some, it might be an independent study substituting for a course, e.g., an unpaid apprenticeship with a government official or an "internship" with a professional person. Appropriate readings and teacher-student conferences would accompany the work, which could be planned for one day a week, one hour a day, weekends only, or whatever timing that suited the persons involved. Such an arrangement could be especially suitable for summer school.

To encourage participation in volunteer work, administrators and teachers should survey the community for needs and for persons willing to assist in supervising volunteers. Parents and students could assist in such a survey. Care should be taken that the work does not become repetitive and that learning is continuous.

Considerable staff time is required for adequate coordination, but such work could give more meaning to school subjects and decrease discipline problems. Students benefit from their association with interested adults and increase their own independence as well as their understanding of the *inter*dependence on which a democratic society is based.

Consumer Activities

Students have continuous real experiences as consumers, both as individuals and as family members. If given some guidance they may be able to intellectualize these experiences and become more adept in utilizing their resources for greater satisfaction.

Individual or group projects may be appropriate and may involve interviewing, record keeping, class discussion, and the like, according to the consumer functions being utilized. Content in many courses may take on increased meaning as it is related to consumer activities; hence, team teaching may be indicated.

Teachers should become acquainted with the consumer habits of families, with community market sources and practices, including those of credit agencies, and with consumer protection agencies.

To aid students in learning from their consumer experiences, teachers can supervise planning and evaluating projects, point out applications of course content in solving consumer problems, direct class discussion to share projects, encourage record keeping, comparison shopping, use of labels and instruction manuals, analysis of advertising, etc., as well as by suggesting interviews with appropriate persons.

Great care should be taken to avoid embarrassment due to income differences among student consumers.

Personal Care and Resource Management

This is related to both family membership and consumer activities but is not entirely subsumed under these categories. Resource management includes decisions in the market but also involves decisions regarding the use of time and energy, skills and talents, and the personal utilization of community resources.

Personal care involves decisions about grooming and dress, about diet and health practices, and about habits affecting mental and emotional well being. Interpersonal relations could also be considered here as well as in employment situations.

This category of experiences is very real and important to each person and therefore rich in educational opportunity. Content which assists an individual in making these important decisions has much meaning, and such content can come from a wide variety of courses, home economics being a leading one.

Teachers can help students build self-esteem or confidence as they increase abilities in these areas. Probably no other objective has greater importance, for without self-esteem no individual can function effectively, regardless of intellect, knowledge, or other advantages.

Citizen Participation

This is a special case of volunteer work and action projects, related to participation in government. It is especially appropriate when community attention is focused on a particular problem, at election times, when disaster strikes, or when citizens are mobilizing to protest or avert some difficulty, but continuous participation is desirable.

In planning for teaching through citizen participation, teachers should become acquainted with community services, local government, community needs and problems, and with the people involved.

As in other action projects, adequate staff time for supervision is important. Students will need help in planning and evaluating projects and in seeing the transfer value of what they learn. Through their projects they may become acquainted with individuals who can have important positive influence on their development and on job opportunities later.

The subject matter content learned through citizen participation may vary widely, and interest may be kindled in both academic and vocational areas hitherto thought dull and useless.

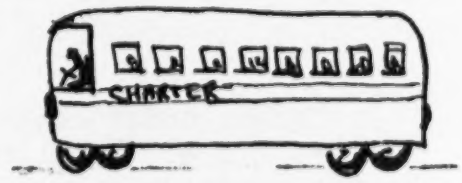
Club Activities

Knowledge, skills, and values may be learned as surely through club activities as through classes; in fact, the students' interest and enthusiasm in working together in their clubs may suggest that more might be accomplished in classes if they became club-like groups, with students taking considerable responsibility for leadership, planning, carrying out projects, evaluating results, etc.

The clubs through which learning may occur are often school clubs, such as Future Homemakers of America, student council, art club, etc., but they may also have other sponsorship, e.g., Scouts, "Y", neighborhood gangs, church groups, and the like.

The objectives of the school, in preparing youth for civic and occupational roles, for example, may be well served through clubs, and curriculum content may take on new meaning as it is used in these real activities. Clubs are an important aspect of our adult society and a means by which some adult education can be acquired; hence, club participation during youth can be a preparation for a continuing activity as well as a presently useful one.

Observations and Field Trips



These are real life situations if they are planned with the students' background in mind as well as the school objectives. Certain kinds of assigned field trips or observations could seem unreal to some students

if too radically removed from their own experience. However, well chosen ones will seem useful because they extend experience in areas of interest to the students.

Multiple objectives may be served by a single trip or planned observation, and sometimes the same class trip may help different students in different ways. For example, a trip through a dry cleaning establishment may teach something about home care of clothes, increase effectiveness in utilizing the services of these businesses, and suggest job opportunities.

Sometimes a student may plan and take a field trip on his own, sometimes a small group, and sometimes a whole class, or even several classes. In every case, adequate preparation is essential and requires cooperation of students, teachers, and administrators. Parental permission must be secured and insurance coverage obtained. Some parents may be happy to accompany students on field trips either to assist the teacher or to further their own learning. Field trips may be planned especially for parents if this is seen as a way to aid their children's development or if it is a part of a program of adult education.

The observation planned for students may be as simple as a look at the plants in the school yard or as complex as the "senior trip to the United States capitol," but if objectives are clear, all can be valuable. Student participation in planning and in the determination of objectives, as well as procedures and evaluation, can significantly affect the outcome. Some important observations can be made in the home, on television, or in the neighborhood.

While field trips and observations are usually planned to meet specific needs and objectives, the converse may also occur if teachers are alert. If a student or students are known to be going on a particular excursion, e.g., a family vacation trip, a shopping trip, or even a pro-baseball game, teachers might ask themselves: What can he or she learn from this trip? How can I promote greater learning by asking questions, pointing out references, or suggesting things to look for? A letter to parents might cause them to consider the educational possibilities for their children in the trips they make together. An adult education class, or even a PTA program, on this subject might be appropriate in many schools.

Having students share their experiences when all do not have the same observations and travels can be broadening to all and give a needed boost in self-esteem to some.

Personal Conferences

This is an actual life situation if the conference is with a person and about a subject which the student sees as real. Conferences with lawyers, physicians, clergymen, and other professional persons, as well

as with relatives and friends, are a definite part of living, and students need to learn how to utilize such conferences to gain knowledge and support.

Experience in conferences with teachers, or with others whom teachers suggest or help to arrange, may provide the necessary guidance. Interviews with resource persons, from whom information is needed to solve a problem, could help students see the value of this technique for learning.

Meditation

This is a technique not usually listed in books on pedagogy but since everyone has frequent occasion to "meditate" or think about his own problems, perhaps some practice in creative and productive meditation could be useful. It is a period of silence during which a particular, specified problem or question is considered.

It usually is not pre-planned but is used at any time that the actual situation seems to warrant. It may provide time for ruffled tempers to settle, for thinking about additional ramifications of some situation, for generating ideas, for evaluating alternatives, or for allowing feelings to penetrate. The time allowed will vary but may be short and should not exceed the period the students can use with profit.

Meditation may be especially useful in value clarification. It may be employed with individuals and small groups as well as classes or clubs; for example, it could be incorporated into a personal conference or a committee meeting in which the teacher is serving as a resource person.

Other Real Life Situations

If a student is asked to:

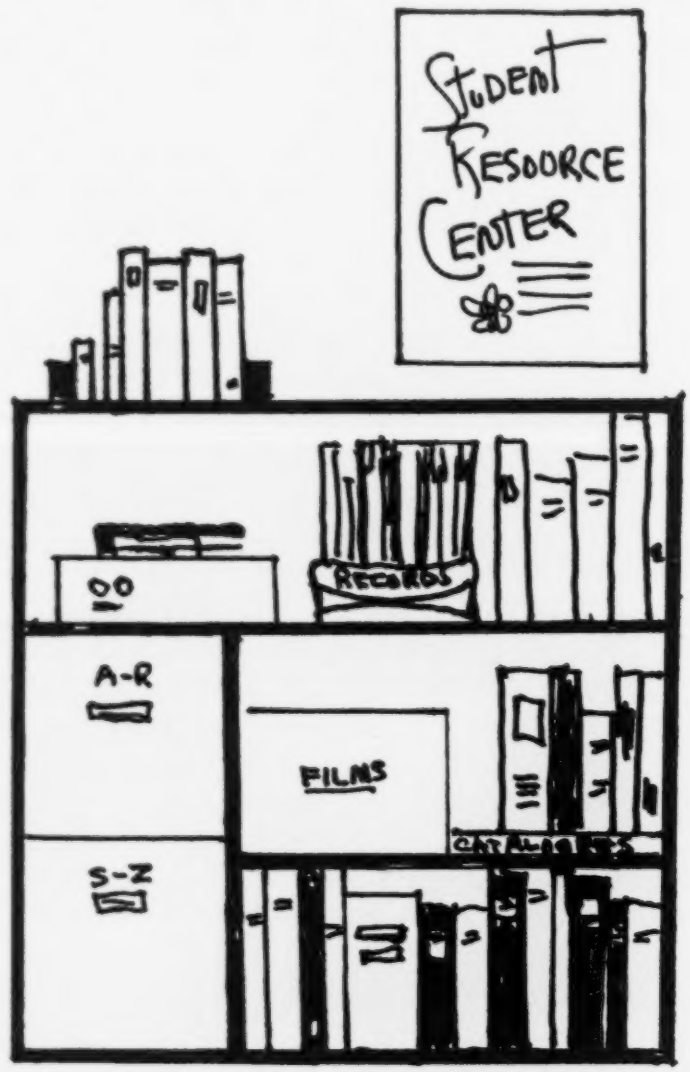
prepare an exhibit at the county fair or the public library,
serve on a panel at the PTA,
give a demonstration in an adult class or at the Women's Club,
appear on TV or radio,
run for office,
write an article for the school paper,
make costumes for the senior play,
decorate the Home Economics Department for Christmas,
prepare display cases for Open House,
be a candidate for beauty queen,
baby sit,
be a junior 4-H leader,
prepare a display window for a neighborhood store,
serve on a Human Relations Committee,

then preparation for these events is part of real life, and the learning which occurs in connection with them is not considered merely "academic"

and apart, even if the content came from courses that might be so labeled. Teachers who capitalize on such opportunities are likely to feel highly rewarded, and administrators would be well advised to allow enough flexibility in staff loads to permit them time to do so.

Reading

In the traditional curriculum, reading is so predominant an activity that those who read poorly or slowly are condemned to failure in almost every realm.



Reading is an important and essential skill and is utilized daily in almost everyone's life, but the kind of reading required at school is rarely the kind that is seen as useful in everyday living. In the latter we use reading (1) to acquire information we think we need, or (2) to seek pleasure via mental stimulation, vicarious experience, escape from reality, or appreciation of beautiful writing. If school assigned reading does neither of these it will not be a real life situation. When reading can be seen as a necessary part of solving a real problem, it can be classified here; and students are likely to *want* to read, provided there are resources available on their reading level. (And the problem could be, of course, the creative use of leisure time and the reading for sheer pleasure.) If the above conditions are to be met, every library must have references on many reading levels on many subjects, and students must have easy access to them and freedom to choose.

If specific readings are required by the teacher, they are often seen as abstractions and may be relatively ineffective. Teachers may *suggest*, of course, without requiring, and thus broaden students' knowledge of what is available to read.

Writing and Speaking

Verbal facility, both spoken and written, is also an essential skill in today's society. If the writing and speaking that is done at school is seen as pleasurable and/or as a necessary part of everyday

living, it will be accepted by students and can be classified as real life situations. Examples (some of which overlap with other situations above) are:

Writing

- Filling out application forms, contracts or job-required examinations and inventory forms
- Writing for publication
- Personal letters or needed business letters
- Records necessary for household operation, personal use, or job
- Writing for personal pleasure or to entertain friends
- Minutes or club meetings or news releases about club activities
- Needed signs, posters, newsletters, invitations, instruction manuals
- Diaries
- Writing for therapy, e.g., to vent feelings
- Preparing materials for visitors to the school, for the school library, for bulletin boards, etc.

Speaking

- Interviews (for job, community surveys, etc.)
- Ordinary conversation with peers or with adults
- Campaign speeches
- Discussion of issues in appropriate situations
- Giving directions or instructions, e.g., for use of appliance
- Teaching younger children
- Conducting meetings or summarizing meetings and conferences
- Career talks
- Radio and TV appearances

CHAPTER III

SIMULATIONS OF REALITY FOR TEACHING AND LEARNING

When needed knowledge, skills, and values cannot be incorporated into real life situations, the teacher will do well to use a simulation technique that is as near to reality as possible. Simulation in this instance is not used as "pretense meant to deceive" but as "assumption of an appearance which is feigned"; it is frankly faked, like a novel. It does not pretend to be real, but it is enough like reality to seem possible.

Simulations of reality can be dramatizations or a wide range of other means of representing actual situations by pretense. Several of the most common will be briefly described.

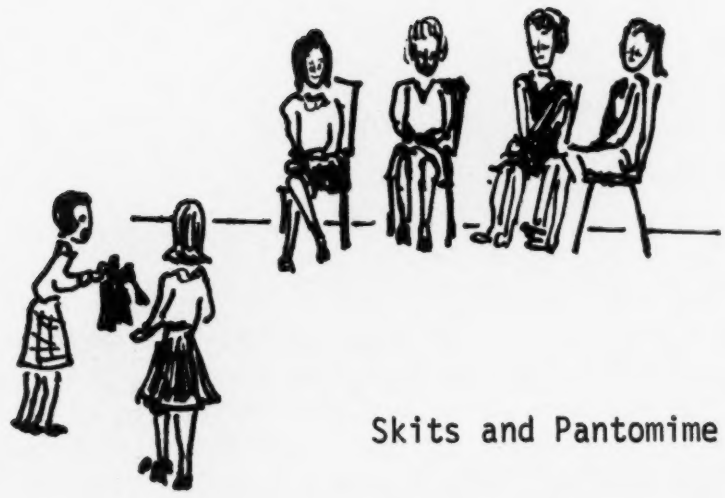
Role Playing

This is a spontaneous dramatization of a situation to show emotional reactions and imagined behavior. Students may act out a given situation as they themselves would do, or they may play the role of a parent or some other person and try to feel and behave as that person would do in that situation. There is no rehearsing and all lines are composed on the spot.

This technique is especially useful in studying attitudes and human relations problems and in making possible a look at personal problems in an impersonal way. If different students role play the same situation, it may demonstrate how values vary and how different people try different solutions to the same problem. Both role players and observers can participate in the discussion which usually follows. During the role playing, observers may be involved by identifying with one of the characters and comparing his own feelings and probable behavior with that of the character.

Plans for a way to select role players may need to be made in advance, and particular objectives for particular students may affect choices. Very timid students may be unable to role play, at least in the beginning, although some may feel more able to participate in a "role" than in the usual class situation.

Action should be stopped while interest is still high and participation active, but not before the ideas or feelings have developed. A pause does not necessarily mean that students have become bored or run out of ideas. If some students laugh or make inappropriate remarks, the teacher may need to enter in to protect others from embarrassment. If discussion is to follow, questions to guide it should be planned ahead.



Skits and Pantomime

A skit may be written by the teacher, by one or more students, or secured from some other source. It is usually designed to dramatize a situation related to the subject under study in order to emphasize points and add interest. Some rehearsal is needed though characters may not commit lines to memory. Characters may volunteer or be selected for particular reasons.

Skits may also be used for evaluative purposes to test for understanding of concepts or ability to apply principles.

Pantomimes may be either skits or role playing but without speech. Gestures, body movement, and facial expression replace words. They may be used to encourage careful observation of action or to demonstrate the effects of non-verbal communication. A commentator can be added, if desired, to call attention to action or ask questions to guide observation, but this is a slightly different technique from the silent pantomime. (See also Silent Demonstration on page 22.)

Games

Games can be created which simulate actual situations, and a few designed for teaching are available for purchase. Some educators have studied game theory extensively and produced games for a variety of purposes. Examples are those available from Western Publishing Co., Inc., 850 Third Avenue, New York, New York 10022, entitled Consumer, Democracy (Legislature), Economic System, Life Career, Community Disaster, Generation Gap, and Ghetto.

Not all games attempt to simulate real life situations, and some may still be useful, though they could not be classified here. Teachers, and sometimes students, may create their own games, too, and add interest to courses and vary routine. In judging games as teaching techniques,

one might consider, in addition to the general criteria for judging all techniques, the following questions:

(1) Is the time required to play the game reasonable in terms of expected learnings?

(2) Is the game itself subordinate to the learnings, i.e., not "gimmicky"?

(3) Does the game create interest, excitement, enjoyment of learning?

(4) Is the structure of the subject matter carefully preserved in the game; i.e., no *mis*information implied or wrong implications drawn because of omissions, oversimplification, etc.?

(5) Is it complicated enough to be interesting and challenging, but simple enough for the rules to be understood quickly?

(6) Is it flexible enough to be adapted for students of different ability levels and for different purposes?

(7) Does winning the game require knowledge rather than *luck*?

(8) Is the "paraphernalia" for playing the game reasonable in cost, storage requirements, etc.?

(9) Does the competition remain friendly? Team competition may be better than individual so that cooperation is also involved.

(10) Does the game require high levels of cognitive behavior? Foster good relationships among students? Aid in skill development? Improve attitudes toward learning? Help clarify values?

In using games in the classroom the teacher should be sure that objectives are clear to the students, have materials ready so as to reduce confusion and avoid wasting time, and take precaution so that losers are not embarrassed. If games are varied and require different skills and abilities, the same students will not always be the winners. The "handicap" idea may be incorporated into some games to reduce the unfair advantage of some students. Amount of handicap could be based on a pretest given without revealing its purpose, or on previous game scores if the game is played several times. If several students can be declared winners, so much the better for motivation.

Inquiry Training or Learning by Inquiry

This is, in a sense, a type of game (though broader and more real) in which students are shown a silent demonstration or film, or a situation is described, and they are asked to explain *why* it happened and thus to discover a principle. The term "inquiry training" was coined by Suchman [4] and later changed to learning by inquiry.

Suchman began in the area of physics with upper elementary students. After showing a brief silent film, he conducted a question and answer session in which the students were encouraged to formulate a theory

by means of questions answerable by Yes or No. The rules of the "game" were that as long as a student got a Yes answer he could continue asking questions. When he received a No, it became another student's turn to inquire. At any time that a student felt he could state the principle sought, he could have a single try. The "winner" was the one who successfully explained the observed phenomenon.

In addition to teaching some principles of physics (and later other content) Suchman endeavored to teach the skills of inquiry which enable students to tackle problems independently. It is possible also to stress *inter*dependence by noting how one student benefits from ideas and questions of other students and how all benefit from the resource person who answers their questions. This understanding of interdependence may be even more important than independence in teaching people how to get along with other people.

Some Home Economics teachers have used the inquiry technique to teach principles of money management, protein cookery, clothing fit, color in design, and the like. Posing the question "Why did the white sauce lump?" can be a much more exciting learning experience than watching the teacher follow a recipe with the question already answered.

Demonstrations

This may be a simulation technique if the demonstrator is showing the observers how to do something which is seen as a part of everyday living. A demonstration may be given by the teacher, a student, a resource person, or a team of any or all of these. Its purpose may be to present ideas or processes or to provide opportunity to experience attitudes and feelings; hence, it may be useful in all three domains of educational objectives, the cognitive, the affective, and the psychomotor.

Demonstrations by students may serve as evaluative devices to show understanding or skill development, or to reveal attitudes.

Careful planning to assure that all needed materials are at hand, that sufficient time is available, and that the physical arrangement permits all to see and hear, will enhance the effectiveness of the demonstration. As in other techniques, distractions should be eliminated as far as possible; written material distributed during a demonstration may be a distraction.

The usual procedure of explanations by the demonstrator along with the action can be varied by either (1) a silent demonstration, perhaps with questions ahead of time to guide careful observation and then a follow-up discussion or a repeat demonstration by a student to see if the process was understood; or (2) a demonstration in which the demonstrator asks with each step of the action "What am I doing?" and "Why am I doing it?" Or she may precede the step with "What shall I do next and why?"

Another variation, which might be called "Monkey see, monkey do," has students repeat each step of the demonstration as it is being given.

Some teachers have students analyze and classify procedures during the demonstration. For example, in a foods demonstration, students could be asked whether a procedure is for sanitation, accuracy, efficiency, etc. Some tell students to watch for errors and then deliberately make some.

Demonstrations can stimulate interest and make some teaching clearer since two senses are involved as students watch and listen. When the objective is skill development and process learning, the technique is particularly needed and should usually be followed immediately by opportunity for all the students to practice the process with supervision.

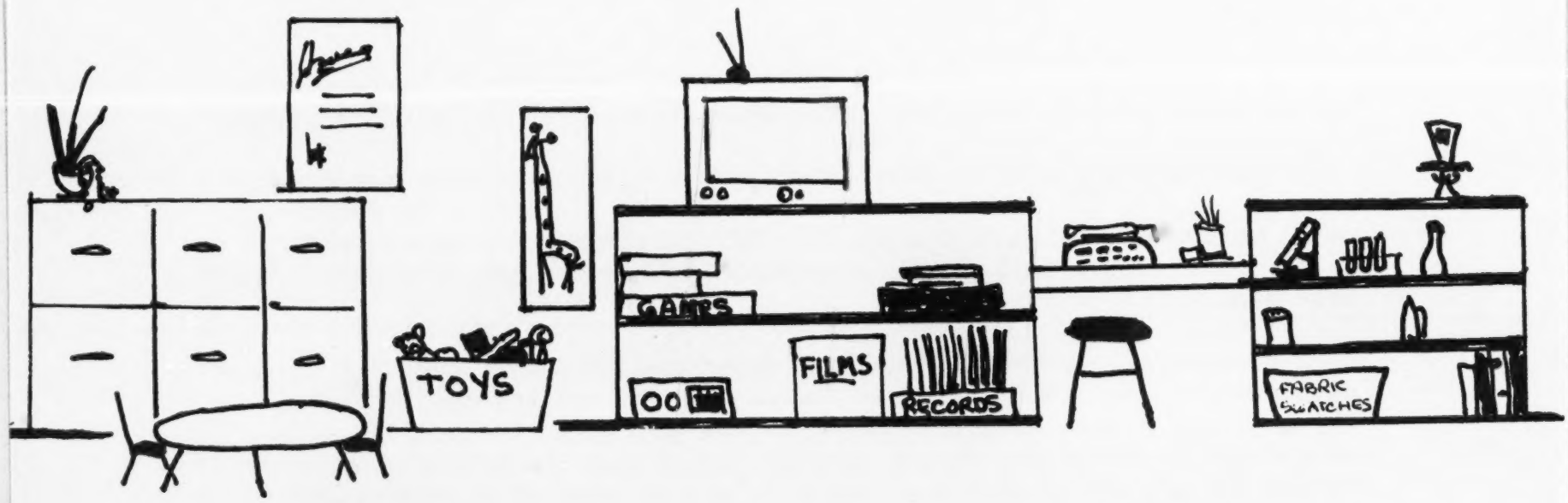
The technique of demonstration, in which a process is performed, should not be confused with a lecture in which products are shown in various stages of the process. The students do not, in the latter case, see the *action* involved in making the product.

Laboratory and Experimentation

This technique can be used as a follow-up for demonstration as noted above, or it can be an opportunity for students to try to follow directions without any previous instruction. The choice depends upon the objective.

Still another possibility, and often a more valuable experience for the students since it requires thinking rather than mere imitation, is experimental labs where students seek to solve problems. If the problems are of the students' own choosing, they may be more eager to find solutions.

Equipment for an experimental lab will be varied, and space for all students to work at the same time is *not* required. In home economics, for example, instead of six identical "unit" kitchens and a dozen or more sewing machines, the lab might contain such equipment and supplies as scales, microscope, thermometers, cooking utensils of various materials, infant equipment and life size doll, toys, chemicals, fabric samples, foods, audio-visual materials, old magazines, a collection of labels, packages and containers, an assortment of small equipment for mending, altering, constructing, and storing clothing; books, pamphlets, and journals; files for student use; laundry and cleaning supplies, cosmetics, games, charts, an old realty notebook showing houses for sale locally, catalogs, typewriter, radio, tape recorder, garments, a lender's chart of the value of used automobiles, flexible furniture to build and arrange, mock-ups, maps, and so on. In such a Department, the oft-seen designations of clothing lab and food lab would not be appropriate.



In such a lab students could create recipes rather than follow them, test fabrics rather than mount samples in scrapbooks, try out laundry procedures rather than simply wash the tea towels, and create designs rather than follow patterns.

In any kind of lab, supervision is needed to insure safety, guide the work, ask questions, give needed assistance, and see that timid students are not overwhelmed by the more aggressive. If too many students are in the lab at one time or if goals are not clear and planning is inadequate, chaotic conditions may arise. Such chaos can, of course, lead to a recognition of the need for planning and may be a necessary step in the process.

Laboratory practice may be especially useful in learning *management skills*. For this purpose it may be desirable to have only one or two students at each lab "station" at a time. For example, one student may prepare a meal in each kitchen unit while the rest of the class is engaged in other activities. They may be observing the "managers," planning their own meal, evaluating past lab work, studying nutrition,

etc. In the development of *human relations skills*, grouping students may provide needed opportunities to practice.

Contrived Incidents

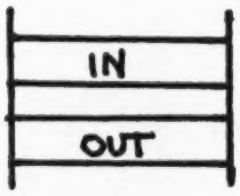
This technique was given its name by Raths [2]. It is a situation devised, fabricated, or invented by the teacher, sometimes in collaboration with others, with the purpose of providing learners an opportunity to experience some *feeling* and thereby gain *understanding*. It can occur with one or many students, in class, club, conference or even on the job. It goes deeper than words. Some examples are:

> When the content to be taught is the principle that decisions are more likely to be carried out and human relationships more satisfactory if all those who are affected by a decision participate in making it, the teacher might contrive an incident in which a decision is arbitrarily imposed and a later one in which a decision is cooperatively made. The learners could recall their feelings in each situation and their desire to help carry out the decision, and thus gain understanding of the principle.
>
> If a student habitually fails to carry out his responsibilites, a teacher (or parent) might contrive a situation in which the student was inconvenienced by someone else's failure to discharge responsibility. The connection between this experience and his own behavior would be called to his attention if he failed to recognize it.
>
> To show that eating breakfast affects feelings and behavior, a teacher might contrive to feed a group of "non-breakfasters," ostensibly for some other purpose, and after a time call their attention to such matters as achievement, prevalence of headache in the morning, extent of irritability and conflict with peers, etc.
>
> To illustrate that appearance affects others' impressions, a teacher might contrive to have two strangers, dressed and groomed in different ways, interrupt the class during a period and later have the students write a paragraph describing their feelings about the strangers. If desired, the strangers could visit the class again and stay long enough to reveal more of themselves, perhaps dressed differently, and comparisons could be made of the first and later impressions.
>
> To show a "cocky" student who lords over his classmates what it feels like to be his victim, an incident could be contrived in which others take similar advantage of him for a time.

In this and all cases the contrivance is explained to the learners, usually immediately, and its purpose revealed.

In-basket

This is the name given to a technique which simulates the in-basket and out-basket on an administrator's desk. The teacher (or sometimes a student) produces the contents of the in-basket and the student disposes of it as he sees fit. It can be adapted to any situation in which the student assumes a managerial role, e.g., management of his own money or other resources, management of a home or some aspect of it, management of a job, or management of an organization or club.



The students find items in their in-baskets which require decisions. When all items are deposited in the out-baskets, discussion can reveal that decisions vary and explanations of difference may indicate differences in knowledge, values, and/or skills.

The technique may involve whole class periods or larger blocks of time, or it may be used for a few minutes at the beginning of each period for several days or weeks. It may involve every member of a class or only one or a few.

It could be particularly useful in consumer education classes and could be adapted for child development courses by using in-basket items that require decisions about children--clothing, feeding, disciplining, etc.

In a course with the general objective of preparing young men and women to manage a home, examples of in-basket items might be either items that come in the mail, such as

a box of Christmas cards and a letter asking you to become a salesman for the company;
a letter saying your in-laws are coming tomorrow to spend a week;
a flyer announcing a big furniture sale at Brown's;
a letter saying you won $100 in a contest;
an announcement of a friend's wedding;
an enormous dentist bill;
an invitation to a party and an announcement of your son's PTA meeting on the same night;
etc., etc.

Or they could be items of information about things that occur in the home and family, such as

the refrigerator broke down;
your 7-year-old woke up with a fever;
an ad on TV shows a new kind of vacuum cleaner (or lawn mower) that would be better than your old one;
your spouse seems very tired and irritable lately;
your 10-year-old is having a birthday;
a teenage neighbor asks you to buy candy to help the school band;
the neighbor's dog fouls your lawn and ruins a shrub;
your 3-year-old spilled coke on the carpet;
etc., etc.

For more specific objectives all items could deal with a particular subject, e.g., the household budget.

In order to provide a framework for the decision making, a description of the family and the situation would precede the items. It would also be desirable for the student to experience the consequences of his decisions as far as possible, and, of course, an important part of the learning is explaining why decisions were made as they were.

Discussion

One of the most frequently used, and often abused, techniques is discussion. It is suited to a wide variety of purposes but quite unsuitable for some. It is not to be confused with the recitation, to be described later (see page 31).

In planning to use the discussion technique one should be aware of the size of the group (12 to 15 is usually considered maximum), and of the physical arrangement. Discussants, including the teacher or leader, should face each other in a circle, and it is advantageous if they are fairly well acquainted; hence it might not be best for a new class on the first day (unless a special kind of discussion is planned for the purpose of getting acquainted). Key questions should be planned to guide the discussion and goals should be clear to all. The "pooling of ignorance" kind of discussion can be avoided by careful planning and preparation of all participants as well as in the choice of topic.

Kinds of discussion include

Whole group - limited to groups no larger than 15

Buzz groups - small groups of 2 to 8 into which a large group is divided. Each may report back to total group if desired.

Panel - small group (usually 3 to 6) who discuss a given subject seated in a semi-circle in front of large group. Members of large group may be invited to participate "from the audience."

Symposium - a series of short speeches (5 to 20 minutes) on various aspects of a subject, followed by questions from the listening group.

Forum - usually two speakers presenting different views on the same subject, followed by questions from the listening group.

Colloquium - variously defined, but may be one or more resource persons who respond to questions from the group rather than presenting addresses. A variant could be the teacher or a student interviewing a resource person and inviting additional questions from the listening group.

Informal debate - group divided into two teams of somewhat equal size to discuss a debatable subject without many of the rules of formal debate. Questions that can be resolved by simply looking at the facts are not suitable for debate. Debatable

issues are value problems and, though relevant facts are brought into the debate, they are not resolved by facts alone.

Fishbowl - a moderator and one to three resource persons seated in a semi-circle along with three empty chairs in front of large group. After a bit of introduction, moderator asks for volunteers from large group to occupy the empty chairs at the front and ask questions or carry on conversation with the guests. The moderator continues to invite more of the "audience" to participate and rotates the occupants of the "empty chairs." The speakers are "in a fishbowl," as it were, as they converse before the total group.

The success of the discussion may be affected by the extent to which feeling as well as thinking is involved and by the preliminary techniques or devices that are used to stimulate it. The following may be useful:

Case situation - a brief description to give reality to an abstract idea by presenting a problem based on a specific situation; also permits discussion of intimate problems in an impersonal manner.

Projective instruments - includes sentence completion, word association, picture interpretation, argument completion, etc., to reveal personal problems for discussion without embarrassment, or to reveal attitudes about subject under study.

Zig zag - (another Raths [2] nomenclature) - a means of leading into a discussion of some value-laden area by introducing "innocuous questions which pique interest and set students to wondering what the lesson is all about" (p. 125). For example, one might lead into a consideration of consumer responsibilities by asking such questions as: Did you ever buy anything you were not satisfied with? Whose fault was it? Did you tell anybody about it? If so, whom? Does a manufacturer have a right to assume that his products are satisfactory if no one complains?

Play, movie, novel, TV program, or story - teacher may select, or write, to bring out problem needing study; story could be left unfinished and endings suggested during discussion.

Quotations - to point up a controversy, state an opinion, highlight a problem.

Magazine article, newsstory, or Ann Landers-type column - teacher may select or write as needed to present problem; e.g., newsstories about home accidents might lead into a study of safety and plans to remove hazards in own homes.

Pictures and photographs - If a picture is worth a thousand words, these could save time!

Provocative questions - kinds will depend upon purpose, of course. Value-clarifying discussions may begin with questions like: Do you think everyone in a society should work? Do you think every person is responsible for his own behavior? If you have blue eyes and you found most people discriminating against blue-eyed people, what would you do?

Brainstorming - technique used to generate ideas, uses for a product, solutions for a problem, etc. Rules usually are that anything that comes to mind should be said, no discussion or evaluating is permitted, though "hitchhiking" on another's idea is permissible. After a few minutes of brainstorming, a discussion can ensue which does evaluate and perhaps a choice is made among the ideas brainstormed. Or discussion may proceed to a related area; e.g., brainstorm ways to use carrots in a meal and proceed to nutritive value of carrots and other vegetables. Or brainstorm ways to use empty cans or boxes and lead into discussion of children's toys.

"Quaker Meeting"

This is similar to the Meditation (see page 15) except that the situation is contrived or simulated rather than real. It is a period of silence to provide time to *feel and think* about some idea or problem, broken when participants have something to share. If one comments upon another's contribution, he must restate it to the satisfaction of the contributor before proceeding.

It is planned in advance and may be preceded by some technique (such as a film) to introduce the problem or provide information about it, and it may be followed by discussion. During the silence between spoken sharings, students may be encouraged to write their thoughts, plans, questions, or notations of further information they feel is needed.

Distractions should be removed as far as possible, lighting may be dimmed, even soft music provided, if desired. Students may be seated in a circle facing outward if necessary to avoid interference with each other. The period of silence should not be extended beyond that which

the students can utilize effectively; five to fifteen minutes may be adequate in many cases.

Reading

Reading, as noted on page 16, can be a real life situation, but it can be, and often *is* in school, an abstraction. It can also be used in connection with simulation techniques. If it is necessary in preparation for a skit, in playing a game, in carrying out an experiment, in preparation for a discussion, and the like, it is a part of the simulation.

If the simulation has captured the students' interest, the reading is likely to be seen as important and entered into eagerly, if materials are available on the needed reading level. The range of reading levels in an average high school class is likely to be from lower elementary to college. Hence, a library need not contain many copies of any given reference but will need a few copies of many books, bulletins, pamphlets, etc., on all of these levels, in whatever subjects are being studied.

Writing and Speaking

Any writing or speaking that is done in connection with a simulation technique can be classified in the simulation category. This includes the writing of skits and stories for class use, reports of experiments, or instructions for games; writing used to make disposition of in-basket items or to respond to projective instruments; speeches or dramatizations in class; participation in discussion or inquiry sessions; oral explanations of demonstrations, and the like.

CHAPTER IV

ABSTRACTIONS FROM REALITY

Abstractions from reality are likely to be the least effective teaching techniques, but they are still in very common use. Principles of human learning make clear that telling is not teaching and that knowledge gained in situations like those in which it will be used is learned more quickly, remembered longer, and transferred more readily.

Abstraction techniques can be identified by asking the question: When or how often do people do this outside of school?

One of the chief dangers of frequent use of abstraction techniques is that students are usually bored and may develop negative attitudes toward learning, a contra-objective of schooling.

Several of the most common of these techniques will be described briefly.

Lecture

Before the invention of the printing press the lecture was a very useful teaching technique. Today, however, it has *limited usefulness* except to inspire, to share relevant personal experiences, or to report research so new as to have been yet unpublished.

Lectures vary in quality, of course, but a lecture is a lecture is a lecture, even if embellished with quantities of visual aids and delivered with silver-tongued oratory, and it rarely meets the criteria of ego involvement, concreteness, and participation of the learners.

If *students ask* for a brief lecture in order to gain information quickly or for some other purpose related to a problem or project they are engaged in, its effectiveness may be much greater than when the lecture is imposed upon them. Sometimes a lecture may have value for introducing a controversial subject and leading into discussion, though in some cases discussion may be inhibited if the lecturer's views become obvious.

A "student report" is also a lecture and may have little value to the listeners unless it incorporates personal experience and observation of the one reporting and is given with more than usual enthusiasm. Sometimes the opportunity to speak before the group is valuable for the one reporting, however.

When resource persons are invited to share their knowledge with a class, the usual lecture may be varied by providing the visitor with a

set of students' questions in advance or by having the teacher, or a student, interview him to guide his remarks.

By the use of telelecture or videotape a teacher may secure resource persons not otherwise available.

Recitation

A recitation is a question and answer session in which the teacher asks questions, usually based on assigned reading, and students are called upon, or they may volunteer, to answer. Usually the questions are recall-type, and students are expected to remember, rather than to do any creative thinking.

It requires little effort and preparation on the part of the teacher, but for teaching effectiveness, its disadvantages are legion. Students usually find it quite dull and boring. Certain ones may obtain satisfaction from success in answering the questions, but others may suffer embarrassment and loss of self-esteem. Even the "good memorizers" may long for an opportunity to think for themselves, and the brightest may be insulted by the insistence upon the "answers in the book."

Since such an experience never occurs except in a classroom, the recitation can be thought of as the most abstract of the abstraction techniques. There is little to recommend it.

Programed Instruction

This is a procedure for self-instruction from a machine or book that has material prepared in small, simple steps in cumulative order, interspersed with questions for self-testing and answers for self-checking. It can include case studies, films, etc.

It has the advantage of self-pacing, and it can be used by one or all the students in a class if a sufficient number of machines or programed books are available. Students receive immediate feedback and they are actively involved.

The type of learning that takes place with this technique is limited, and some students find it very boring. The fragments of information and the ultra simple questions seem almost insulting to some students, but others who have experienced repeated failure may find needed reward.

The variety of reading levels of students in any given class presents a serious problem because programs are usually available on only one level. Since students will progress at many rates, plans for those who complete programs early would need to be made.

Preparation of programs is difficult and time consuming, and few are available in most fields. In Home Economics, beginnings have been made in infant care and nutrition.

Computer Assisted Instruction

Computer assisted instruction (CAI) is a self-instructional system with interaction between computer and learner. The computer is programmed to respond in various ways to the student's answers to its questions, depending upon the degree of understanding exhibited in the answer.

CAI provides individualized instruction and the learner can proceed at his own pace in any location properly equipped. Master teachers can be utilized to provide the programs. The chief limitations at present, are the cost of equipment and the production of adequate programs. In addition, the technique does nothing to aid the student in the socialization process. Future developments may add to its variety and the extent of its use. Many educators are enthusiastic about its possibilities.

Audio-Tutorial Instruction

Teachers may utilize self-instructional techniques and materials as a part of their courses through the use of a resource center equipped with films, programmed materials, tapes, etc. Individualization is possible in the selections made. Laboratory work can be included.

Learning Packages

A great variety of possibilities exist for the development of learning packages in almost every field. They consist of major concepts, behavioral objectives, suggested activities, and means of evaluation. Usually a pretest is included to help the student assess his present status and as a benchmark against which to measure his growth. The packages are planned by the teacher and contain specific and detailed instructions for the student, but they permit self-teaching in carrying out the instructions at the student's own rate.

In Home Economics, such packages (called HELPs) are being prepared by Drs. Elizabeth Ray and Twyla Shear at The Pennsylvania State University.

Examinations

Tests, quizzes, and examinations of all kinds are frequent occurrences in most schools. Their purpose is usually to obtain information with which to assign grades. For furthering student learning they often have limited value, and they may have a negative effect on attitudes toward learning and on the development of self-esteem.

Examinations are infrequent outside of school, but since they are sometimes required to secure a job or obtain promotions, test-taking

skills may be useful to a limited extent. Some kinds also require writing skill and therefore may encourage its development.

If examinations are planned with teaching objectives in mind, considering both the kind of objective (cognitive, affective or psychomotor) and the level to be attained, their effect on learning will be more positive. As currently employed in many instances, they involve only cognitive learning at very low levels and hence give false impressions concerning its exclusive importance.

Lack of enthusiasm for examinations does not mean, of course, that *evaluation* has little value, but other means of evaluation may promote greater learning. If a variety of means are employed and if evaluation is seen as an integral part of the total program, the results can be used by both teacher and students to enhance the educational effort. For one excellent source of help in this regard see Wilhelms [5]. Many of the simulation techniques can be used in evaluation.

Supervised Study

This is a situation in which students use class time for study, usually assigned reading with a "study guide" or set of questions to be answered. This technique ranks high on abstraction and low on student interest. There are three contributory problems.

One of the problems is that usually all students are assigned to read the same book and the reading level fits only a few. For some, the usual grade-level text is too easy and therefore boring; for others it is too difficult and like a foreign language. A wider range of materials in the classroom and student freedom to choose readings could help solve this problem.

Another problem is that students are often given the reading assignment before they see any *reason* to read. If assignments *followed* discussion, after questions had arisen showing need for more information, rather than preceding it, students might be more eager to read. Or if they are writing papers or doing projects which the reading could facilitate, they would view it as more useful and meaningful.

A third problem is the "study guide" which is anathema to most students. What is its purpose? If it is to point out to the student, as he reads, the important points in the selection, does it not rob him of the important experience of deciding what is worthwhile and of finding the information he may need? It may be a crutch, and when a person is learning to walk, we do not usually hamper him with crutches. The experience of choosing what is most important, and then analyzing why and comparing with what others thought most important, may be much more growthful.

Supervised study can be a useful technique when the *study* consists of individual and group projects of genuine interest to the students. *Supervision* then means that the teacher circulates among the students to inspire, advise, encourage, and offer reference materials and guidance.

Drill

If drill is the process of repeating a given bit of information or a specific skill over and over to make it "automatic," it may be quite unacceptable to most students unless they decide for themselves that they need the repetition for a chosen purpose.

It is unlikely that any particular piece of knowledge or any skill is important enough to warrant the development of negative attitudes toward learning. If certain basics do seem necessary for all, then techniques should be devised for using these basics in a variety of ways so that repetition is possible without monotony and boredom. Unless this can be called drill, then drill probably has little to recommend it.

Perhaps the key is in whether the teacher assigns drill, or the student decides to drill himself. In the latter case, he could develop the skill without the negative attitudes toward learning. If the teacher makes clear the need for the information or skill, most students will agree to the necessary drill.

Reading, Writing, and Speaking

Any reading, writing or speaking that is not seen by the student as pleasurable or as a part of his everyday life, or of a simulation of life in which he is interested, is classified as abstraction. Examples are the usual assigned themes, speeches, and chapters to be read. Such activities may have some value, but it is likely to be limited. Furthermore, when one is forced to do these things in less than meaningful situations, he may learn to dislike them and to avoid them.

Also, any reading attempted on a more difficult level than can be understood is an abstraction and has the same negative effect on learning and on enjoyment of reading.

In more sophisticated language, this position has been stated by Morris* in *Institutions of Intelligence* as follows:

> Literacy takes many forms, and no doubt the child should not have foisted on him techniques of learning to read or write or speak which are not extensions of what he can directly relate to his perceptions of and involvements with things, processes, and persons, and their various interrelations. I think we must admit that Dewey was absolutely right in inveighing against both rote and cerebral tasks which are divorced from experiencings and doings and which thus remove the child from activity meaningful to him. In any of its manifestations, if use of language is not meaningful, it may better be foregone. (pp. 117-118)

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*Bertram Morris, *Institutions of Intelligence*, Studies in Educational Theory of the John Dewey Society, No. 6, Columbus, Ohio State University Press, 1969.

CHAPTER V

INDIVIDUALIZING INSTRUCTION WITH A "HAPPENING"

One of the highest priorities in education today is for individualized instruction to meet special needs. Segregation of students by ability level has been tried, but even in such segregated groups there is much heterogeneity. Furthermore, students in segregated groups do not become acquainted with those outside their groups, and an important part of their education is missed. "Separate but equal" is probably as impossible in this situation as in groups segregated by race or sex.

Instruction can be individualized in heterogeneous classes if teachers can reject the notion that all students in a class must do the same thing in the same way at the same time. Students can be studying the same general concepts and cooperating as a class and at the same time be engaged in various activities of various difficulty levels and utilizing references of various reading levels. In such a class students may be working individually or in small *groups which change frequently* according to individual interests, talents, and needs.

This idea of many things going on in a classroom at the same time, with each student participating in some phase of the study with special appeal for him, might be thought of, in modern parlance, as a "happening" --a math happening, a history happening or a home economics happening, according to the course. If the happening occurred in a consumer education class, it might include such activities as the following--or none

of these and many others, according to the individual members of the class and the teacher, all of whom have creative ideas, interests, talents, background knowledge, and needs.

In such a class one might observe during a semester:

(1) the total group planning together on general objectives and a division of labor to meet them;

(2) buzz groups identifying the kinds of choices consumers must make today;

(3) two sub-groups preparing to report to the class on (a) legislation which protects consumers, and (b) additional legislation needed;

(4) a student reporting to the class, with the aid of a tape recorder, an interview with an official from the Attorney General's office on the subject of consumer frauds;

(5) a group experimenting with cosmetics of different price levels and comparing the results;

(6) a student writing a letter of protest to a firm sponsoring misleading advertising;

(7) a group preparing an analysis of selected TV ads to present to the class, along with the tape-recorded audio of the ads;

(8) a group performing an original skit to explain certain consumer protection agencies to the class;

(9) two students leading the class in a discussion of consumer rights and responsibilities, with role playing to illustrate at appropriate points;

(10) a student preparing a bulletin board to share her findings after a comparison shopping trip for a transistor radio;

(11) a group reporting on the cost of credit at several sources they have investigated;

(12) a student writing an article for the newspaper about some of the class activities;

(13) a student previewing a film or film strip for possible use in class;

(14) a group performing a skit to illustrate the kinds, costs, and uses of insurance;

(15) a student preparing a display to show the consumer that food *costs* are *not* related to nutritional value;

(16) a student role playing an encounter with a persistent door-to-door salesman;

(17) two students interviewing a realtor about a house for sale while the rest of the class listens and makes note of the additional questions they would want to ask before buying a house;

(18) two students testing the run-resistance of differently priced stockings;

(19) a student preparing a display to show what the consumer "buys" with his taxes;

(20) a group investigating the possibility of setting up a school credit union;

(21) a blindfolded tasting panel comparing the quality of differently priced cans of peaches;

(22) a group experimenting with ways to create consumer demand within the class or school for a particular product, as a study in the effects of advertising;

(23) a group studying consumer choices in the school cafeteria line;

(24) two students studying the audio quality of differently priced records of popular music;

(25) students who had volunteered to keep records of their expenditures for a month, sharing with the class their procedures and their learnings and how they would use the results (but *not* sharing the actual personal records);

(26) a group or the whole class playing the Consumer Game or Monopoly;

(27) a group creating a game to show that in consumer choices one resource can substitute for or extend another, e.g., time and skill for money, or vice versa;

(28) a student writing a story to teach a young child some principle important to consumers, e.g., the relation of comparison shopping to cost and consumer satisfaction;

(29) a student reporting on a personal experience in sharing his knowledge and skill with someone who was making a consumer decision;

(30) a student and a resource person in a dialogue before the class, sharing knowledge of legal services available to consumers;

(31) a group preparing a recommendation for the school on the purchase of a new appliance;

(32) the whole class having a party, a "shower" for a bride at which the gifts are consumer information and friendly "advice," or pictures of objects which would make good gifts and explanations from each giver for the choice;

(33) a student preparing an exhibit of toys to guide consumers at Christmas, to be set up in a public place or for the school Open House;

(34) a group performing a skit to illustrate how families can improve their consumer position by intercooperation and sharing;

(35) a group setting up a simulated clothing "store" for class

members to "shop." Items could be displayed without prices and students asked to estimate and tell why. Or a number of similar garments of different prices could be displayed without any hangtags or labels and students asked to make a choice --to demonstrate the usefulness of labels. Or students could be asked to rank a selection of garments on the basis of quality of workmanship and explain their rankings. Or some students could play a salesman role and try to influence choices. Many other uses of such a set-up are possible;

(36) a student finding out what it would cost him to own and operate a car;

(37) a student comparing the cost of transportation by personal car and by other means;

(38) a group investigating the cost of health care (doctor, hospital, health insurance, free clinics, etc.);

(39) a group investigating alternatives for family vacations, considering cost, time available, and other factors influencing choice in their own families;

(40) a couple planning low cost furnishings for an apartment.

At a given time during the semester, one might observe any one or several of the above activities in progress. All of them are student centered and the students are *active* learners. Learning *activities* are not limited to science labs and physical education or to cooking and sewing, but are possible and desirable in all classes. Learning theorists are agreed, in spite of their many disagreements, that learning occurs when a person takes active part in the learning process and feels rewarded for his participation; hence, the desirability of students being involved in class planning and in choosing their own activity.

This does not mean, of course, that teachers are superfluous nor that they are passive observers. They are active resource persons constantly encouraging, asking questions, suggesting ideas and references, and listening. They are helping each student gauge his own progress and determine next steps. They are promoting intellectual sharing so that while students are gaining depth in some areas, they will gain awareness in others by seeing what classmates are doing. In such a class, the teachers usually do not have to use their time and energy to "discipline" or to coerce students to do assignments; and their improved morale, along with the time saved, helps them to do a better job of teaching. In many of the activities, the teacher will be a fellow participant as he or she enters into discussion, plays a game, or brings a "gift" to the bridal shower. The teacher directing a "happening" is concerned with helping students *discover* and *learn* rather than with "covering" a certain amount of subject matter.

The variety of activities described should also make clear that varying ability levels can be accommodated in the same class, and even in the same small group. Some students who have a record of failure may improve their performance in this kind of class because (1) having

choice of activity increases interest, (2) the variety in activities removes much of the sting of competition, (3) they may have opportunity to work closely with another student who helps and inspires, and/or (4) they may feel that the teacher and their fellow students *expect* them to achieve.

According to the Coleman Report* on "Equality of Educational Opportunity," "There is reason to believe that children learn mainly from one another instead of from their teachers." If this is true, then a teacher in charge of a Happening will do a great job as she helps students learn from each other at a faster pace. And as a "partner in learning" he or she will be viewed as another student from whom they can learn, rather than as an authority figure to rebel against.

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*Christopher Jencks, "A Reappraisal of the Most Controversial Educational Document of Our Time," in *New York Times Magazine*, August 10, 1969.

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